Marius Wernig on why we need many stem cell approaches to new therapies
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Last week we blogged about work by Marius Wernig of Stanford University, who has successfully converted human skin into nerves, skipping the step of first converting the cells into embryonic-like iPS cells.

Wernig is quoted in a Nature news story talking about whether the work could replace induced pluripotent stem (iPS) cells or embryonic stem cells:

> "I would say that both approaches should be actively pursued because you never know for which cases and specific applications one or the other may be more suitable."

I think the best example of why we need many approaches to treating disease came from patient advocate Rodney Paul, who spoke to an external review committee last year about CIRM. Here's what we wrote in our Best. Analogy. Ever. blog entry on October 13, 2010:

> He pointed out that on this day the world saw awe-inspiring images of the first of 33 miners rising out of the Chilean mine where they'd been trapped - and that those miners were rescued through one of three shafts that had been dug as part of the rescue mission.

The shaft in question was dubbed "Plan B". Drilling on plans A and C didn't go as smoothly as hoped. That's why on an important mission where time is limited and lives are at stake it's important not to pin all hopes on one strategy.

With embryonic, adult, iPS and cancer stem cells plus the new direct conversion techniques CIRM is drilling a series of shafts all leading toward possible disease therapies.

We have a list of all our grants online. You can use the filters to see how many awards we're funding using different types of cells. Right now, the numbers are:

- Embryonic: 215
- iPS: 78
- Adult: 47
- Cancer: 10

Those numbers are updated whenever we fund new awards.

A.A.

Tags: direct reprogramming, Wernig, Stanford University

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